

CLAIMS:

1. A system for monitoring status of a lighting system, the system comprising:

a lamp assembly comprising a housing and a lamp disposed in the housing;

a lens disposed adjacent to the lamp, the lens comprising a conductor adapted to lose electrical continuity upon occurrence of a crack in the lens; and

a monitoring system coupled to the conductor and configured to detect the loss of electrical continuity in the conductor.

2. The system of claim 1, wherein the lens comprises glass.

3. The system of claim 1, wherein the lens comprises a moldable polymeric material.

4. The system of claim 1, wherein the lens is sealed to the housing.

5. The system of claim 1, wherein the conductor comprises a conductive wire.

6. The system of claim 1, wherein the conductor comprises a decal configured to be disposed on a surface of the lens.

7. The system of claim 1, wherein the conductor is embedded in the lens.

8. The system of claim 1, wherein the conductor defines a continuous path disposed over a desired region of the lens.

9. The system of claim 8, wherein the region comprises a central region of the lens.

10. The system of claim 8, wherein the region comprises a peripheral region of the lens.

11. The system of claim 1, further comprising a communication system for transmitting a signal to a remote location, representative of a state of continuity of the conductor.

12. A kit for monitoring status of a lighting system, the kit comprising:
a lens; and
a conductor disposed in a region of the lens, wherein the conductor is adapted to lose electrical continuity upon occurrence of a crack in the lens.

13. The kit of claim 12, wherein the lens comprises glass.

14. The kit of claim 12, wherein the lens comprises a moldable polymeric material.

15. The kit of claim 12, wherein the conductor comprises a conductive wire.

16. The kit of claim 12, wherein the conductor comprises a decal configured to be applied to a rear surface of the lens.

17. The kit of claim 12, wherein the region comprises a central region of the lens.

18. The kit of claim 12, wherein the region comprises a peripheral region of the lens.

19. A method for monitoring status of a lighting system, the method comprising:

disposing a lens in a lamp assembly;

disposing a conductor over a desired region of the lens, the conductor adapted to lose electrical continuity upon occurrence of a crack in the lens; and monitoring the conductive path for a loss in electrical continuity.

20. The method of claim 19, wherein disposing the lamp in the lamp assembly comprises sealing the lens in a lamp housing.

21. The method of claim 19, wherein monitoring the conductive path comprises coupling the conductor to an electrical monitoring system configured to apply a monitoring signal to the conductor during operation.

22. A method for monitoring status of a lighting system, the method comprising:

monitoring a state of continuity of a conductor coupled to a lens in a lamp assembly, wherein the continuity is interrupted by a crack in the lens; and

generating a signal in response to loss of continuity of the conductor indicative of occurrence of a crack in the lens.

23. The method of claim 22, further comprising providing an output signal to a location remote from the lighting system, the output signal providing an indication of the operational state of the lens.

24. A lens configured for detecting cracks comprising:

a lens disposed adjacent to a lamp; and

a conductor disposed in a region of the lens, wherein the conductor is adapted to lose a continuity in response to formation of a crack in the lens, the conductor comprising a plurality of leads configured to be coupled to a monitoring system and to provide a signal to a remote location representative of a state of continuity of the conductor.

25. The crack detection lens of claim 24, wherein the conductor comprises a conductive wire.

26. The crack detection lens of claim 24, wherein the region comprises a central region of the lens.

27. The crack detection lens of claim 24, wherein the region comprises a peripheral region of the lens.

28. A system for monitoring status of a lighting system, the system comprising:

a lamp assembly comprising a housing and a lamp disposed in the housing;

a lens disposed adjacent to the lamp;

a reflector disposed adjacent to the lamp, the reflector comprising a reflector conductor adapted to lose electrical continuity upon occurrence of a crack in the reflector; and

a monitoring system coupled to the reflector conductor and configured to detect the loss of electrical continuity in the reflector conductor.

29. The system of claim 28, further comprising a conductor disposed on the lens and adapted to lose electrical continuity upon occurrence of a crack in the lens, and a monitoring system coupled to the conductor and configured to detect the loss of electrical continuity in the conductor.

30. The system of claim 28, wherein the reflector comprises glass.

31. The system of claim 28, wherein the reflector comprises a moldable polymeric material.

32. The system of claim 28, wherein the reflector conductor comprises a conductive wire.

33. The system of claim 28, wherein the reflector conductor is configured to be disposed on a rear surface of the reflector.

34. The system of claim 28, wherein the reflector conductor is configured to define a continuous path disposed over a desired region of the reflector.

35. The system of claim 28, further comprising a communication system for transmitting a signal to a remote location, representative of a state of continuity of the reflector conductor.